

Appl. No. 10/080,994
Amdt. Dated October 21, 2004
Reply to Office Action of August 2, 2004

Attorney Docket No. 81784.0250
Customer No.: 26021

REMARKS/ARGUMENTS

Claims 1-22 were pending in the Application. By this Amendment, claims 1 and 2 are being canceled, claims 3, 4, 10, 13 and 14 are being amended, and new claim 23 is being added, to advance the prosecution of the application. No new matter is involved.

In Paragraph 2 on page 2 of the Office Action, a new title is required that is clearly indicative of the invention to which the claims are directed. In response, Applicants are amending the present title in order to read "OPTICAL DISK RECORDING/REPRODUCING METHOD AND APPARATUS IN WHICH RECORDING PROPERTIES OF THE DISK ARE DETECTED WHEN RECORDING SPEED IS CHANGED". As so amended, the new title is submitted to be clearly indicative of the invention to which the claims are directed.

In Paragraph 4 on page 2 of the Office Action, claims 4, 10 and 13 are objected to because of various informalities pointed out therein. In response, Applicants are amending claim 4 to remove "[said]" in the third line thereof. Applicants are also amending claim 10 to delete the word "the" in the third line thereof. Further, Applicants are amending line 2 of claim 13 to change "circuit" to -- means--. As so amended, claims 4, 10 and 13 are now submitted to be clear and definite.

In Paragraph 5 which begins at the bottom of page 2 of the Office Action, claim 14 is rejected under 35 U.S.C. § 112, first paragraph, as being a single means claim and therefore unduly broad. In response, Applicants are amending claim 14 so that it introduces the controller for controlling the recording of a recording signal onto a disk so that the recording signal is recorded onto the disk at a constant linear speed, and then further defines the controller as including "means for interrupting the recording of the recording signal etc.". As so amended, claim 14 now defines

Appl. No. 10/080,994
Amdt. Dated October 21, 2004
Reply to Office Action of August 2, 2004

Attorney Docket No. 81784.0250
Customer No.: 26021

multiple means or elements, so as to obviate the rejection thereof under 35 U.S.C. § 112, first paragraph.

In Paragraph 6 which begins on page 3 of the Office Action, claims 1, 2, 12 and 13 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,636,468 of Salmonsens. In Paragraph 7 which begins on page 5 of the Office Action, claims 3-8 and 14-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Salmonsens in view of U.S. Patent 6,643,233 of Yen. In Paragraph 8 which begins on page 7 of the Office Action, claims 9 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Salmonsens in view of Yen and further in view of U.S. Patent 6,556,524 of Takeshita. In Paragraph 9 which begins on page 8 of the Office Action, claims 10, 11, 21 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Salmonsens in view of Yen and further in view of Takeshita. These rejections are respectfully traversed, particularly in view of the claims as amended herein.

The present invention provides a method and apparatus for recording/reproducing in which recording of a recording signal onto a disk is controlled so that the recording signal is recorded onto the disk at a constant linear speed. Recording of the recording signal onto the disk is interrupted, signal writing on the disk is reproduced before resuming a reproducing/recording operation, and the recording properties of the disk are detected based on the reproduced signal in order to set the linear speed. The interrupting of the recording of the recording signal onto the disk is made when a recording position is moved to a position in which the recording operation can be performed in a constant higher linear speed state and changing the recording speed.

None of the cited references disclose or suggest the concept in accordance with the invention of detecting the recording properties of the disk when the

operation for changing the recording speed is performed. This is particularly true of the Yen reference which appears to be cited principally for its disclosure of such feature.

Claim 3 defines a method for recording/reproducing which includes controlling the recording of a recording signal onto a disk so that the recording signal is recorded onto the disk at a constant linear speed, and interrupting the recording of the recording signal onto the disk, reproducing the signal writing on the disk before resuming a reproducing/recording operation, and detecting the recording properties of the disk based on the reproduced signal in order to set the linear speed. As amended, claim 3 further defines the method thereof in terms of "the interrupting of the recording of the recording signal onto the disk being made when a recording position is moved to a position in which the recording operation can be performed in a constant higher linear speed state and changing the recording speed". As so amended, claim 3 is submitted to clearly distinguish patentably over the cited references. Similar comments apply to claims 4-11 which depend, directly or indirectly, from and contain all of the limitations of claim 3.

Claim 12 defines a recording/reproducing apparatus which includes a buffer for temporarily storing the recording signal and control means. The control means is defined as controlling the recording of the recording signal onto the disk during the recording of the recording signal onto the disk so as to interrupt the recording of the recording signal onto the disk when an amount of said recording signal data in the buffer is not greater than an interruption setting value, and to resume the recording of the recording signal onto the disk when the amount of the recording signal data in the buffer is not less than a resumption setting value during the recording of the recording signal onto the disk. The control means is further defined as reproducing the signal written on the disk before the recording is resumed,

recording, based on the reproduced signal, the recording signal after resuming the recording onto the disk in continuation with the recording signal before the interruption, and "detects the recording properties of said disk based on the signal reproduced before said recording is resumed". Claim 12 is submitted to clearly distinguish patentably over the references.

Similar comments apply to claim 13 which depends from and contains all of the limitations of claim 12.

In the case of claim 14, such claim defines recording/reproducing apparatus which is comprised of a controller for controlling the recording of a recording signal onto a disk so that the recording signal is recorded onto the disk at a constant linear speed. The controller is defined as including means for interrupting the recording of the recording signal onto the disk, reproducing the signal writing on the disk before resuming a reproducing, recording operation, and "detecting the recording properties of the disk based on the reproduced signal in order to set the linear speed". Therefore, claim 14 is submitted to clearly distinguish patentably over the cited references.

Similar comments apply to claims 15-22 which depend, directly or indirectly, from and contain all of the limitations of claim 14.

New claim 23 is similar to amended claim 3 except that it defines the step of temporarily storing a recording signal in a buffer and further characterizes the interrupting of the recording signal onto the disk as "being made when a recording position is moved to a position in which the recording operation can be performed in a constant higher linear speed state and buffer underrun has occurred". Therefore, new claim 23 is submitted to clearly distinguish patentably over the cited references.

Appl. No. 10/080,994
Amdt. Dated October 21, 2004
Reply to Office Action of August 2, 2004

Attorney Docket No. 81784.0250
Customer No.: 26021

In conclusion, claims 3-23 are submitted to clearly distinguish patentably over the art for the reasons discussed above. Therefore, reconsideration and allowance are respectfully requested.

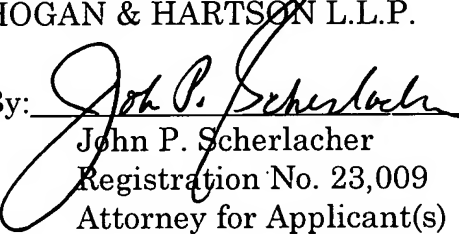
If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6846 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

Date: October 21, 2004

By: _____


John P. Scherlacher
Registration No. 23,009
Attorney for Applicant(s)

500 South Grand Avenue, Suite 1900
Los Angeles, California 90071
Phone: 213-337-6700
Fax: 213-337-6701